

Appl. No. 09/828,715
Response Dated November 10, 2006
Reply to Office Action of June 15, 2006

REMARKS

Applicants and their representatives would like to thank Examiner Rhee for the time and courtesy extended in a personal interview Wednesday, October 18, 2006. During the interviews, presently presented amendments to the claims and various embodiments of the above-captioned application were discussed. The Examiner stated that the presently presented amendments appear to differentiate the claims over the cited art, but additional search of the art would be necessary.

Claims 100-127 are currently pending in the application including independent claims 100, 114, and 123. Independent claim 100, for instance, is directed to a five layer stitchless seam. The five layer stitchless seam comprises a first thermoplastic tape portion, a first substrate portion in contact with the first thermoplastic tape portion, a second thermoplastic tape portion in contact with the first substrate portion, a second substrate portion in contact with the second thermoplastic tape portion, and a third thermoplastic tape portion in contact with the second substrate portion. The stitchless seam is a flexible seam. In addition, at least one of the first thermoplastic tape portion, the second thermoplastic tape portion, and the third thermoplastic tape portion is a multi-layer tape portion running the length of the seam that includes a first continuous layer having a first melting point and a second continuous layer having a second melting point.

In the Office Action, paragraphs 2 through 12 were directed to claims that have previously been cancelled. In the interview, Examiner Rhee confirmed that the rejections of these cancelled claims have been withdrawn.

Appl. No. 09/828,715
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In the Office Action, claims 115, 116, and 122 were rejected under 35 U.S.C. §112, first paragraph. Specifically, the term "bonding width" was suggested to raise new matter issues. With no comment as to the appropriateness of the rejection, the term "bonding width" has been removed from the claims.

In the Office Action, claim 124 was rejected under 35 U.S.C. §112, first paragraph. Specifically, it was suggested that neither the drawings nor the specification describe a third substrate portion. Applicants respectfully disagree. As clearly set forth in the specification, for example at page 4, lines 26-27, the application describes one embodiment of the invention as a method of joining two *or more* substrates with a thermoplastic tape. Similarly, at page 8, lines 9-14, the specification contemplates using a thermoplastic tape into operative communication with one *or more* substrates. The addition of a third or even more substrates, for instance through the inclusion of additional tape portions to the seam, through addition of a needle sewn seam, or according to any other methods as is generally known in the art, is clearly within the broader aspects of the invention as described in the specification. Applicants respectfully request withdrawal of this rejection.

In the Office Action, claims 108 and 117 were rejected under 35 U.S.C. §112, second paragraph. With no comment as to the appropriateness of the rejection, and merely in an earnest attempt to facilitate prosecution of this case, Applicants have amended claims 108 and 177 to recite a "double felled needle sewn seam," clarifying that the seam of the claims is at least as strong as a double-felled needle sewn seam. Support for this amendment is found throughout the application, for example at page 11,

Appl. No. 09/828,715
Response Dated November 10, 2006
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lines 9-17, and in the Examples section, and specifically Example 6 and Table 1.

Accordingly, withdrawal of this rejection is respectfully requested.

In the Office Action, independent claim 100 was rejected under 35 U.S.C. §102 as being anticipated by Gaylord, Jr. (U.S. Patent 3,970,079).

As presently presented, independent claim 100 includes certain limitations found in previously presented dependent claim 102. Specifically, independent claim 100 includes a multi-layer tape portion that runs the length of the seam and includes a first continuous layer having a first melting point and a second continuous layer having a second melting point. In the Office Action, dependent claim 102 was rejected under 35 U.S.C. §103(a) as being unpatentable over Gaylord, Jr. in view of Obayashi, et al. (U.S. Patent No. 4,410,575).

As correctly pointed out in the Office Action, Obayashi, et al. teaches a bonding tape in which one or both surfaces of the bonding tape may have a layer of an adhesive. However, according to Obayashi, et al., it is preferable that the area of the layer of the adhesive does not exceed 50% of the entire area of each end portion to be welded. (Col. 5, ll. 36-50). Accordingly, the adhesive layer of Obayashi, et al. is *not* a continuous layer as is found in the multi-layer tape portion of claim 100, as a continuous layer of adhesive would have an area at least equivalent to that of each end portion to be welded. Moreover, Obayashi, et al. teaches away from such a continuous layer, as this adhesive layer is merely for the purpose of fixing the locations of the end portions of the fabric and the bonding tape in the desired relationship to one another, and the reference teaches that the adhesive may detract from the primary bonding desired at the weld, i.e., that provided by the bonding tape itself. For at least these reasons,

Appl. No. 09/828,715
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Applicants submit that independent claim 100 patentably defines over the cited reference.

In the Office Action, Independent claims 114 and 123 were rejected under 35 U.S.C. §102 as being anticipated by Gaylord, Jr.

Applicants respectfully submit that the claims patentably define over the cited reference for at least the reason that the claims include limitations neither disclosed nor suggested by the reference.

For instance, Gaylord, et al. does not disclose or suggest the extension of a tape portion beyond the seam width itself such that the tape portion is bonded to a first substrate surface across a width that is equivalent to the seam width *plus* an additional width of at least 1.6 millimeters, as is found in independent claim 114. In contrast, and as illustrated in Figures 9-13 of Gaylord, et al., the interconnecting unitary strips of Gaylord, et al. (reference characters 60, 64, 65, 66, and 68 on the figures, respectively) contact the panels *only* over the width of overlap of the panels, and do not extend beyond this overlap width by an additional width as is required by the first tape portion of the multilayer stitchless seam of independent claim 114.

Gaylord, et al. also fails to disclose or suggest limitations of independent claim 123. For example, Gaylord, et al. fails to disclose or suggest a multilayer stitchless seam wherein at least one of the first or second substrates is a composite substrate comprising at least two layers, as is required by the claim. (Support for the presently presented amendments to this claim can be found throughout the specification, for example in the paragraph beginning at page 5, line 6 and in Examples 1 and 4.)

Appl. No. 09/828,715
Response Dated November 10, 2006
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While the above discussion is primarily directed to independent claims 100, 114 and 123, the above-cited references were also cited to reject the dependent claims. Applicants respectfully submit, however, that dependent claims 101, 103-113, 115-122, and 124-127 patentably define over the references cited and that the patentability of the dependent claims does not hinge on the patentability of the related independent claims. In particular, it is believed that the dependent claims possess features that are independently patentable, regardless of the patentability of independent claims 100, 114, and 123.

It is believed that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Examiner Rhee is invited and encouraged to telephone the undersigned, however, should any issues remain after consideration of this Amendment.

Please charge any additional fees required by this response to Deposit Account No. 04-1403.

Respectfully submitted,

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